

## RESTRICTED CIRCULATION

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### A FRENCH RECIPE FOR GROWING SOYA BEANS

#### 1. INTRODUCTION

The French farming paper L'Agricole has occasional summaries of the requirements of different crops. Known as "fiches techniques", they are reminiscent of the tear-out recipe cards in the magazine Elle. The following example was published on 20 April 1974, p. 23.

#### 2. THE TEXT

##### SOYA BEANS

Soil: slightly acid: pH 6.0 to 6.5; proportion of active calcium not too high (15%)

Climate: accumulated temperature: around 2,500°C [above 0°C]; temperature at sowing: 12°C minimum; temperature at flowering: above 13°C

Water: minimum requirement: 400mm

Varieties: Chippewa: 115-125 days - suitable for marginal areas  
Amsoy: 135-150 days - better adapted to conditions in the favourable zone.

##### Preparation of the Soil:

- cultivate well in depth, the soil must be sufficiently fine at the surface and present a well-levelled bed (the first pods are only 10cm above the soil);
- help germination by making sure of a good contact between seed and soil;
- don't push the cultivations, to avoid asphixiating the roots.

Inoculation: [with Rhizobium]

- indispensable
- handling of the inoculum must be done carefully and does not present any hazard.

##### Sowing:

- Rhône Valley - Mediterranean Midi, from 20 April onwards;
- South-West: 25 April to 15 May;
- West-Atlantic: 10 May to 25 May;
- optimum plant population: 300,000 to 400,000 per ha;
- minimum spacing: 45 to 55cm, but 50 to 65cm where irrigation is used
- choose certified seed
- sow at 3cm depth in moist soil, but at 5-6cm in soil which is rapidly drying out.

Fertiliser: N = 30; P<sub>2</sub> O<sub>5</sub> = 60 to 100  
K<sub>2</sub>O = 100 to 150 [kg/ha]

Irrigation (requirements):

- sowing to beginning of flowering (60 days) 150mm;
- flowering to appearance of first pods (20 days) 100 to 200mm;
- first pods to maturity (65 days) 200 to 250mm.

Irrigation consists in applying the additional water [to rainfall] necessary to meet the requirement of the crop.

Herbicide: Linuron pre-emergence, at 2kg per ha of commercial product containing 50% active ingredient.

Harvest: by combine, as soon as a finger-nail can only scratch the bean with difficulty.

3. COMMENT

The meteorological information regarding temperatures accumulated temperature and irrigation need, is much more detailed than would normally be offered directly to farmers in Britain. It is not always clear whether air or soil temperatures are meant, nor is the base for accumulated temperature given though it can be inferred from other literature that it is 0°C. It is interesting to speculate on what proportion of French farmers know, through their national advisory service or otherwise, sufficient about their soil and climate to make full use of the information offered in this "fiche technique".

Any comments or suggestions on this paper should be sent to the author.

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